IN THE SPECIFICATION:

Please replace paragraph on page 12, lines 1-9 with the following amended paragraph:

Specifically, the cleaning gas may be a fluorine-containing gas, a chlorine-containing gas or a halogen-containing gas. Representative examples of fluorine-containing gas include HF, ~~F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8~~ F_2, NF_3, SF_6, C_2F_6, CF_4, and C_3F_8. The rapid heating module may be a high power lamp assembly placed at the bottom of the chamber, a resistive heater or an inductive heater assembly embedded in the chamber wall next to the liner, or a combination of any two or three. The process chamber may be a CVD or etch chamber.

Please replace paragraph on page 12, lines 11-26 with the following amended paragraph:

In one embodiment of the present invention there is provided a method for cleaning a process chamber, comprising the steps of introducing at least one cleaning gas to the process chamber; and employing a rapid heating module located in the process chamber, wherein the rapid heating module comprises a high power lamp assembly, a resistive heater assembly, an inductive heater assembly, or a combination of two or more of the assemblies, wherein the rapid heating module increases the temperature of chamber parts and improves the surface temperature uniformity of chamber parts when the module is turned on, thereby assisting the cleaning activity of the cleaning gas such that the process chamber is cleaned. Specifically, the halogen-containing gas may be a fluorine-containing gas or a chlorine-containing gas. Representative examples of the fluorine-containing gas include HF, ~~F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8~~ F_2, NF_3, SF_6, C_2F_6, CF_4, and C_3F_8. The process chamber may be a CVD or etch chamber.

Please replace paragraph on page 20, lines 21-27 with the following amended paragraph:

User different process conditions, there exists a large variation of the temperature changes for different chamber parts. Gas flow is the most critical parameter in inducing the temperature change. ~~H.sub.2~~ H_2 gas flow, for example, induces the greatest temperature decrease. Other parameters, such as the pressure and electrode spacing, may also induce temperature changes to different extents.

Please replace paragraph on page 21, lines 1-13 with the following amended paragraph:

When 1/8" thick ceramic spacers are inserted between the liners and chamber wall (right column of Table 2), a vacuum gap is created therein and thus the heat conduction is reduced from the temperature non-uniformity in the process chamber is not as great as that shown in the left column. Thus using ceramic spacers can create some temperature uniformity in the chamber, although ceramic spacers only achieve limited success in raising the temperature, as identified in TC5 and TC10, with ~~N.sub.2~~ N_2 and ~~H.sub.2~~ H_2 flow. However, such approach is not quite effective, as the heat loss from the gas flow is much stronger than other heat loss mechanisms. Therefore it would be advantageous to have another active heating device to effectively perform an RTP cleaning of the chamber.

Please replace paragraph on page 24, lines 23-28 and page 24, lines 1-4 with the following amended paragraph:

Specifically, during the cleaning period, a cleaning gas is flowed to the chamber (Figure 2). A fluorine-containing gas, a chlorine-containing gas or a halogen-containing gas may be used as the cleaning gas. For example, a fluorine-containing gas, e.g., HF, ~~F.sub.2, NF.sub.3, SF.sub.6, C.sub.2 F.sub.6, CF.sub.4, and C.sub.3F.sub.8~~ F_2, NF_3, SF_6, C_2F_6, CF_4, and C_3F_8, or other fluorocarbon gases of the general formula

~~C.sub.xF.sub.y~~ C_xF_y is commonly used for cleaning. A rapid heating module, e.g., a high power lamp placed at the bottom of the chamber, or a resistive heater embedded in the wall next to the liner, or a combination of both, is applied to the chamber to heat up the liners and other chamber parts.

Please replace paragraph on page 25, lines 23-28 and page 26, lines 1-10 with the following amended paragraph:

Alternatively, the plasma may be provided remotely (Figure 3). A remote plasma source cleaning system comprises a cleaning gas source connected to a remote activation chamber. The cleaning gas source includes a source of a precursor gas, an electronically-operated valve and flow control mechanism for controlling the flow of precursor gas and a conduit for flowing the gas into the remote activation chamber located outside and at a distance from the process chamber. A power activation source, for example a high-power microwave generator, is used to activate the precursor gas within the remote activation chamber. The remote chamber may be a sapphire tube and the power source a 2.54 GHz microwave energy source with its output aimed at the sapphire tube. The precursor gas may be a fluorine-containing gas, a chlorine-containing gas or a halogen-containing gas, for example, ~~NF.sub.3~~ NF_3. The flow rate of activated species is about 2 liters per minute and the process chamber pressure is about 0.5 Torr.